Modeling structure with Blocks

This section describes how to work in two types of diagrams that are dedicated to model a structure of systems: SysML Block Definition Diagram (BDD) and SysML Internal Block Diagram (IBD). The elements in the BDD are **elements of definition** while the elements in the IBD are **elements of usage**. Elements of definition describe the unique instances and can be reused in multiple context to share this definition. E.g. the Block is a definition and is used as type in IBD. The IBD displays usages of Blocks that is the Part Properties and Reference Properties of the Block. In other words, Part Properties are the usages of the Block in the context of composing Block.

Read the following topics to learn how to model your structure:

- Defining Blocks in Block Definition Diagram
- Decomposing Blocks
- Defining interfaces using ports
- Connecting Blocks in SysML Internal Block Diagram
- SysML specific compartments
- Using Units
- Initial Values
- Creating Interface Control Document tables
- Rollup Pattern Wizard
- Layout templates
- Diagram aspects
- Automatic Instantiation wizard
- Extract Structure Wizard